

IB Review Session 2

- * IB Test information calculators
- * IA Scores
- * Continue Paper 2 practice
- * Paper 1 Practice

IB Test information

Turn in your grapher to be reset on Mon, April 30.

Drop it off in the IHS office.

Your calculator will be handed to you as you arrive at the test site:

A - K: Emerald Bible Fellowship

L - Z: Harvest Community Church

First thing to do when you get it back:

Turn Diagnostics on!

IA Scores:

You were scored by a group of teachers against the scoring criteria. Comments are related to each criteria and should not be taken personally. Remember that the scoring was done by people who don't know you.

Your final score may be different from this one after moderation is done by IB.

Continuing Paper 2 Practice

5) a) i) 8450

ii) 8400 euro

b) i) $8000 + 450(n-1)$

ii) $8000(1.05)^{n-1}$

c) $8000 + 450(n-1) \geq 8000(1.05)^{n-1}$
 $n = 6$ yrs.

d) i) 173,000 euro

ii) 167,000 euro

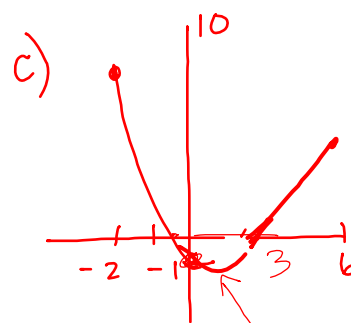
Antonio doesn't earn
 more than Barbara

$$6a) f(0) = \frac{4}{2^0} + 1.5(0) - 5$$

$$f(0) = -1$$

b) use grapher to solve:

$$\frac{4}{2^x} + 1.5x - 5 = 0$$



$$f(x) = g'(x)$$

$$g'(1) = f(1) = \frac{4}{2^1} + 1.5(1) - 5$$

$$= -1.5$$

$$g(1) = 3$$

$$\text{eq. } y - 3 = -1.5(x - 1)$$

$$y = -1.5x + 4.5$$

Paper 1 2013

1 a) $z = \frac{17(12.5)^2}{(0.592 - 0.447)} = 21,250$ c) 2

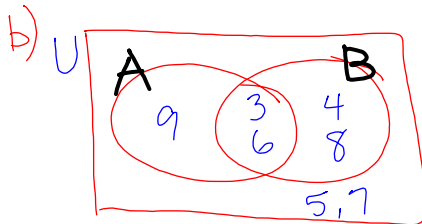
b) i) 21000

ii) 21300

c) 2.13×10^4

2) ai) 3, 4, 5, 6, 7, 8, 9

ii) 3, 4, 6, 8



3) ai) $p \wedge \neg q$

ii) $p \vee q$ or $(p \vee q) \vee (p \wedge q)$

b) If Yuiko is not studying Chinese,
then she is studying French.

4) a) 54 cm

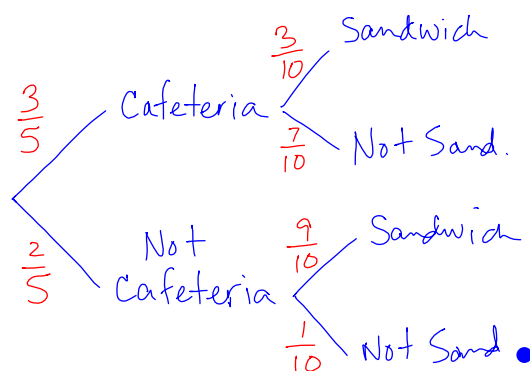
b) 58

c) 58, 45

$$58 - 45 = 13$$

d) $80 - 14 = 66$

5) a)



$$\begin{aligned}
 b) \quad & \frac{3}{5} \cdot \frac{3}{10} + \frac{2}{5} \cdot \frac{9}{10} \\
 & = \frac{27}{50} \approx 0.54 \approx 54\%
 \end{aligned}$$

6a)

$\neg P$	$\neg P \vee q$
F	T
F	F
T	T
T	T

b) $x \geq 10$ or $x^2 > 100$

c) T

d) Any x : $-10 \leq x < 10$

7a) $\frac{3}{4}$ or 0.75

b) $u_1 \left(\frac{3}{4} \right)^3 = 135$ or by list
 $u_3 = 180$ $u_2 = 240$

$u_1 = 320$

c) $S_{10} = \frac{320 \left(1 - \left(\frac{3}{4} \right)^{10} \right)}{1 - \frac{3}{4}}$

≈ 1210

8a) 42kg

b) $58 - 33 = 25$

c) $\frac{1}{4}$ or 0.25 or 25%

d) $\bar{x} = 43.875 \text{ kg}$

$$\bar{x} = \frac{35.5(15) + 40(15) + 46(15) + 54(15)}{60}$$

9a) 5

b) $\frac{-b}{2(-1)} = 2$ or $y = 5 + bx - x^2$
 $9 = 5 + b(2) - 2^2$

$b = 4$

c) 5, -1

d) $f(x) = -(x-5)(x+1)$

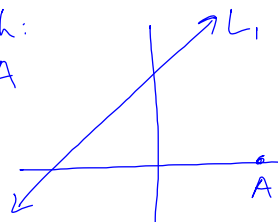
10a) $2(0) - 3(6) \neq 11$ or sketch:

$L_1 \nparallel A$

or $A(6,0)$

$2y - 3x = 11$

x-int: $(-\frac{11}{3}, 0)$



b) $2y = 3x + 11$ or $y - \frac{3}{2}x = \frac{11}{2}$

Slope = $\frac{3}{2}$ or 1.5

c) $m = -\frac{2}{3}$

d) $0 = -\frac{2}{3}(6) + c$

$c = 4$

$$11a) 5000(0.024) = 120$$

$$b) 4880\left(\frac{1}{1.2945}\right) = 3769.80$$

$$c) 150(19495) = 2,924,000$$

$$12a) u_1 + 4d - u_1 = 36$$

$$d = 9$$

$$bi) u_{10} = 2u_7$$

$$u_1 + 9d = 2[u_1 + 6d] \text{ or equivalent}$$

$$ii) u_1 + 81 = 2u_1 + 108$$

$$u_1 = -27$$

$$13) a) 10$$

$$b) 4$$

$$c) \frac{360}{24} = 15$$

$$d) 6 < t < 18 \text{ or } 6 \leq t \leq 18$$

$$14a) 11200 = \frac{20,000(3.5)t}{100}$$

$$t = 16$$

$$b) 27,000 = 18,000\left(1 + \frac{3.4}{100(4)}\right)^{4n}$$

$$n = 12$$

$$15) a) f'(x) = 3ax^2 - 3$$

$$b) -3$$

$$c) f'(x) = 0$$

$$3a(-2)^2 - 3 = 0$$

$$a = \frac{1}{4}$$

* Next time:

χ^2 review

normal distribution

tangent & normal to
a curve using f'